

SEQUENCE LISTING

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Liu, Liping
Liu, Zheng

<120> EPITOPE SEQUENCES

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<151> 2002-09-06

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Gly Phe Asn Cys Gly Asn Cys Lys Phe Gly Phe Trp Gly Pro Asn Cys
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Asn Gly Ser Thr Pro Met Phe Asn Asp Ile Asn Ile Tyr Asp Leu Phe

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Pro Trp His Arg Leu Phe Leu Leu Arg Trp Glu Gln Glu Ile Gln Lys		
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Ala Glu Lys Cys Asp Ile Cys Thr Asp Glu Tyr Met Gly Gly Gln His		
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Pro Thr Asn Pro Asn Leu Leu Ser Pro Ala Ser Phe Phe Ser Ser Trp		
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Cys Asn Gly Thr Pro Glu Gly Pro Leu Arg Arg Asn Pro Gly Asn His		
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Pro Ala Asn Glu Tyr Ala Tyr Arg Arg Gly Ile Ala Glu Ala Val Gly		
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Leu Pro Ser Ile Pro Val His Pro Ile Gly Tyr Tyr Asp Ala Gln Lys		
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Ala Phe Ser Pro Gln Gly Met Pro Glu Gly Asp Leu Val Tyr Val Asn
1 5 10 15
Tyr Ala Arg Thr Glu Asp Phe Phe Lys Leu Glu Arg Asp Met
20 25 30

<210> 31
<211> 23
<212> PRT
<213> Homo sapiens

<400> 31
Gly Met Pro Glu Gly Asp Leu Val Tyr Val Asn Tyr Ala Arg Thr Glu
1 5 10 15
Asp Phe Phe Lys Leu Glu Arg
20

<210> 32
<211> 9
<212> PRT
<213> Homo sapiens

<400> 32
Met Pro Glu Gly Asp Leu Val Tyr Val
1 5

<210> 33
<211> 10
<212> PRT
<213> Homo sapiens

<400> 33
Gly Met Pro Glu Gly Asp Leu Val Tyr Val
1 5 10

<210> 34
<211> 9
<212> PRT
<213> Homo sapiens

<400> 34
Gly Met Pro Glu Gly Asp Leu Val Tyr

1

5

<210> 35
<211> 10
<212> PRT
<213> Homo sapiens

<400> 35
Gln Gly Met Pro Glu Gly Asp Leu Val Tyr
1 5 10

<210> 36
<211> 8
<212> PRT
<213> Homo sapiens

<400> 36
Met Pro Glu Gly Asp Leu Val Tyr
1 5

<210> 37
<211> 9
<212> PRT
<213> Homo sapiens

<400> 37
Glu Gly Asp Leu Val Tyr Val Asn Tyr
1 5

<210> 38
<211> 10
<212> PRT
<213> Homo sapiens

<400> 38
Pro Glu Gly Asp Leu Val Tyr Val Asn Tyr
1 5 10

<210> 39
<211> 10
<212> PRT
<213> Homo sapiens

<400> 39
Leu Val Tyr Val Asn Tyr Ala Arg Thr Glu
1 5 10

<210> 40
<211> 9
<212> PRT
<213> Homo sapiens

<400> 40
Val Asn Tyr Ala Arg Thr Glu Asp Phe
1 5

<210> 41
<211> 10
<212> PRT
<213> Homo sapiens

<400> 41
Tyr Val Asn Tyr Ala Arg Thr Glu Asp Phe
1 5 10

<210> 42
<211> 9
<212> PRT
<213> Homo sapiens

<400> 42
Asn Tyr Ala Arg Thr Glu Asp Phe Phe
1 5

<210> 43
<211> 8
<212> PRT
<213> Homo sapiens

<400> 43
Tyr Ala Arg Thr Glu Asp Phe Phe
1 5

<210> 44
<211> 9
<212> PRT
<213> Homo sapiens

<400> 44
Arg Thr Glu Asp Phe Phe Lys Leu Glu
1 5

<210> 45
<211> 30
<212> PRT
<213> Homo sapiens

<400> 45
Arg Gly Ile Ala Glu Ala Val Gly Leu Pro Ser Ile Pro Val His Pro
1 5 10 15
Ile Gly Tyr Tyr Asp Ala Gln Lys Leu Leu Glu Lys Met Gly
20 25 30

<210> 46
<211> 25
<212> PRT
<213> Homo sapiens

<400> 46
Ile Ala Glu Ala Val Gly Leu Pro Ser Ile Pro Val His Pro Ile Gly
1 5 10 15
Tyr Tyr Asp Ala Gln Lys Leu Leu Glu
20 25

<210> 47
<211> 9
<212> PRT
<213> Homo sapiens

<400> 47
Leu Pro Ser Ile Pro Val His Pro Ile
1 5

<210> 48
<211> 10
<212> PRT
<213> Homo sapiens

<400> 48
Gly Leu Pro Ser Ile Pro Val His Pro Ile
1 5 10

<210> 49
<211> 9
<212> PRT
<213> Homo sapiens

<400> 49
Ile Gly Tyr Tyr Asp Ala Gln Lys Leu
1 5

<210> 50
<211> 10
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<400> 50
Pro Ile Gly Tyr Tyr Asp Ala Gln Lys Leu
1 5 10

<210> 51
<211> 9
<212> PRT
<213> Homo sapiens

<400> 51
Ser Ile Pro Val His Pro Ile Gly Tyr
1 5

<210> 52
<211> 10
<212> PRT
<213> Homo sapiens

<400> 52
Pro Ser Ile Pro Val His Pro Ile Gly Tyr
1 5 10

<210> 53
<211> 8
<212> PRT
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<400> 53
Ile Pro Val His Pro Ile Gly Tyr
1 5

<210> 54
<211> 9
<212> PRT
<213> Homo sapiens

<400> 54
Tyr Tyr Asp Ala Gln Lys Leu Leu Glu
1 5

<210> 55
<211> 27
<212> PRT
<213> Homo sapiens

<400> 55
Ser Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val Asp Cys Thr Pro Leu
1 5 10 15
Met Tyr Ser Leu Val His Leu Thr Lys Glu Leu
20 25

<210> 56
<211> 9
<212> PRT
<213> Homo sapiens

<400> 56
Ile Glu Gly Asn Tyr Thr Leu Arg Val
1 5

<210> 57
<211> 10
<212> PRT
<213> Homo sapiens

<400> 57
Ser Ile Glu Gly Asn Tyr Thr Leu Arg Val
1 5 10

<210> 58
<211> 8
<212> PRT
<213> Homo sapiens

<400> 58
Glu Gly Asn Tyr Thr Leu Arg Val
1 5

<210> 59
<211> 9
<212> PRT
<213> Homo sapiens

<400> 59
Thr Leu Arg Val Asp Cys Thr Pro Leu
1 5

<210> 60
<211> 10
<212> PRT
<213> Homo sapiens

<400> 60
Tyr Thr Leu Arg Val Asp Cys Thr Pro Leu
1 5 10

<210> 61
<211> 9
<212> PRT
<213> Homo sapiens

<400> 61
Leu Arg Val Asp Cys Thr Pro Leu Met
1 5

<210> 62
<211> 9
<212> PRT
<213> Homo sapiens

<400> 62

Arg Val Asp Cys Thr Pro Leu Met Tyr
1 5

<210> 63
<211> 10
<212> PRT
<213> Homo sapiens

<400> 63
Leu Arg Val Asp Cys Thr Pro Leu Met Tyr
1 5 10

<210> 64
<211> 35
<212> PRT
<213> Homo sapiens

<400> 64
Phe Asp Lys Ser Asn Pro Ile Val Leu Arg Met Met Asn Asp Gln Leu
1 5 10 15
Met Phe Leu Glu Arg Ala Phe Ile Asp Pro Leu Gly Leu Pro Asp Arg
20 25 30
Pro Phe Tyr
35

<210> 65
<211> 22
<212> PRT
<213> Homo sapiens

<400> 65
Val Leu Arg Met Met Asn Asp Gln Leu Met Phe Leu Glu Arg Ala Phe
1 5 10 15
Ile Asp Pro Leu Gly Leu
20

<210> 66
<211> 9
<212> PRT
<213> Homo sapiens

<400> 66
Met Met Asn Asp Gln Leu Met Phe Leu
1 5

<210> 67
<211> 10
<212> PRT
<213> Homo sapiens

<400> 67
Arg Met Met Asn Asp Gln Leu Met Phe Leu

1

5

10

<210> 68
<211> 9
<212> PRT
<213> Homo sapiens

<400> 68
Arg Met Met Asn Asp Gln Leu Met Phe
1 5

<210> 69
<211> 17
<212> PRT
<213> Homo sapiens

<400> 69
Met Leu Leu Ala Val Leu Tyr Cys Leu Leu Trp Ser Phe Gln Thr Ser
1 5 10 15
Ala

<210> 70
<211> 661
<212> PRT
<213> Homo sapiens

<400> 70
Met Asp Leu Val Leu Lys Arg Cys Leu Leu His Leu Ala Val Ile Gly
1 5 10 15
Ala Leu Leu Ala Val Gly Ala Thr Lys Val Pro Arg Asn Gln Asp Trp
20 25 30
Leu Gly Val Ser Arg Gln Leu Arg Thr Lys Ala Trp Asn Arg Gln Leu
35 40 45
Tyr Pro Glu Trp Thr Glu Ala Gln Arg Leu Asp Cys Trp Arg Gly Gly
50 55 60
Gln Val Ser Leu Lys Val Ser Asn Asp Gly Pro Thr Leu Ile Gly Ala
65 70 75 80
Asn Ala Ser Phe Ser Ile Ala Leu Asn Phe Pro Gly Ser Gln Lys Val
85 90 95
Leu Pro Asp Gly Gln Val Ile Trp Val Asn Asn Thr Ile Ile Asn Gly
100 105 110
Ser Gln Val Trp Gly Gly Gln Pro Val Tyr Pro Gln Glu Thr Asp Asp
115 120 125
Ala Cys Ile Phe Pro Asp Gly Gly Pro Cys Pro Ser Gly Ser Trp Ser
130 135 140
Gln Lys Arg Ser Phe Val Tyr Val Trp Lys Thr Trp Gly Gln Tyr Trp
145 150 155 160
Gln Val Leu Gly Gly Pro Val Ser Gly Leu Ser Ile Gly Thr Gly Arg
165 170 175
Ala Met Leu Gly Thr His Thr Met Glu Val Thr Val Tyr His Arg Arg
180 185 190
Gly Ser Arg Ser Tyr Val Pro Leu Ala His Ser Ser Ser Ala Phe Thr
195 200 205

Ile Thr Asp Gln Val Pro Phe Ser Val Ser Val Ser Gln Leu Arg Ala
 210 215 220
 Leu Asp Gly Gly Asn Lys His Phe Leu Arg Asn Gln Pro Leu Thr Phe
 225 230 235 240
 Ala Leu Gln Leu His Asp Pro Ser Gly Tyr Leu Ala Glu Ala Asp Leu
 245 250 255
 Ser Tyr Thr Trp Asp Phe Gly Asp Ser Ser Gly Thr Leu Ile Ser Arg
 260 265 270
 Ala Pro Val Val Thr His Thr Tyr Leu Glu Pro Gly Pro Val Thr Ala
 275 280 285
 Gln Val Val Leu Gln Ala Ala Ile Pro Leu Thr Ser Cys Gly Ser Ser
 290 295 300
 Pro Val Pro Gly Thr Thr Asp Gly His Arg Pro Thr Ala Glu Ala Pro
 305 310 315 320
 Asn Thr Thr Ala Gly Gln Val Pro Thr Thr Glu Val Val Gly Thr Thr
 325 330 335
 Pro Gly Gln Ala Pro Thr Ala Glu Pro Ser Gly Thr Thr Ser Val Gln
 340 345 350
 Val Pro Thr Thr Glu Val Ile Ser Thr Ala Pro Val Gln Met Pro Thr
 355 360 365
 Ala Glu Ser Thr Gly Met Thr Pro Glu Lys Val Pro Val Ser Glu Val
 370 375 380
 Met Gly Thr Thr Leu Ala Glu Met Ser Thr Pro Glu Ala Thr Gly Met
 385 390 395 400
 Thr Pro Ala Glu Val Ser Ile Val Val Leu Ser Gly Thr Thr Ala Ala
 405 410 415
 Gln Val Thr Thr Glu Trp Val Glu Thr Thr Ala Arg Glu Leu Pro
 420 425 430
 Ile Pro Glu Pro Glu Gly Pro Asp Ala Ser Ser Ile Met Ser Thr Glu
 435 440 445
 Ser Ile Thr Gly Ser Leu Gly Pro Leu Leu Asp Gly Thr Ala Thr Leu
 450 455 460
 Arg Leu Val Lys Arg Gln Val Pro Leu Asp Cys Val Leu Tyr Arg Tyr
 465 470 475 480
 Gly Ser Phe Ser Val Thr Leu Asp Ile Val Gln Gly Ile Glu Ser Ala
 485 490 495
 Glu Ile Leu Gln Ala Val Pro Ser Gly Glu Gly Asp Ala Phe Glu Leu
 500 505 510
 Thr Val Ser Cys Gln Gly Leu Pro Lys Glu Ala Cys Met Glu Ile
 515 520 525
 Ser Ser Pro Gly Cys Gln Pro Pro Ala Gln Arg Leu Cys Gln Pro Val
 530 535 540
 Leu Pro Ser Pro Ala Cys Gln Leu Val Leu His Gln Ile Leu Lys Gly
 545 550 555 560
 Gly Ser Gly Thr Tyr Cys Leu Asn Val Ser Leu Ala Asp Thr Asn Ser
 565 570 575
 Leu Ala Val Val Ser Thr Gln Leu Ile Met Pro Gly Gln Glu Ala Gly
 580 585 590
 Leu Gly Gln Val Pro Leu Ile Val Gly Ile Leu Leu Val Leu Met Ala
 595 600 605
 Val Val Leu Ala Ser Leu Ile Tyr Arg Arg Arg Leu Met Lys Gln Asp
 610 615 620
 Phe Ser Val Pro Gln Leu Pro His Ser Ser Ser His Trp Leu Arg Leu
 625 630 635 640
 Pro Arg Ile Phe Cys Ser Cys Pro Ile Gly Glu Asn Ser Pro Leu Leu
 645 650 655
 Ser Gly Gln Gln Val

<210> 71
 <211> 309
 <212> PRT
 <213> Homo sapiens

<400> 71

Met	Ser	Leu	Glu	Gln	Arg	Ser	Leu	His	Cys	Lys	Pro	Glu	Glu	Ala	Leu
1															15
									10						
															15
Glu	Ala	Gln	Gln	Glu	Ala	Leu	Gly	Leu	Val	Cys	Val	Gln	Ala	Ala	Thr
20															30
									25						
Ser	Ser	Ser	Pro	Leu	Val	Leu	Gly	Thr	Leu	Glu	Glu	Val	Pro	Thr	
35															45
									40						
Ala	Gly	Ser	Thr	Asp	Pro	Pro	Gln	Ser	Pro	Gln	Gly	Ala	Ser	Ala	Phe
50															60
Pro	Thr	Thr	Ile	Asn	Phe	Thr	Arg	Gln	Arg	Gln	Pro	Ser	Glu	Gly	Ser
65															80
								70		75					
Ser	Ser	Arg	Glu	Glu	Gly	Pro	Ser	Thr	Ser	Cys	Ile	Leu	Glu	Ser	
85															95
Leu	Phe	Arg	Ala	Val	Ile	Thr	Lys	Lys	Val	Ala	Asp	Leu	Val	Gly	Phe
100															110
Leu	Leu	Lys	Tyr	Arg	Ala	Arg	Glu	Pro	Val	Thr	Lys	Ala	Glu	Met	
115															125
Leu	Glu	Ser	Val	Ile	Lys	Asn	Tyr	Lys	His	Cys	Phe	Pro	Glu	Ile	Phe
130															140
Gly	Lys	Ala	Ser	Glu	Ser	Leu	Gln	Leu	Val	Phe	Gly	Ile	Asp	Val	Lys
145															160
Glu	Ala	Asp	Pro	Thr	Gly	His	Ser	Tyr	Val	Leu	Val	Thr	Cys	Leu	Gly
165															175
Leu	Ser	Tyr	Asp	Gly	Leu	Leu	Gly	Asp	Asn	Gln	Ile	Met	Pro	Lys	Thr
180															190
Gly	Phe	Leu	Ile	Ile	Val	Leu	Val	Met	Ile	Ala	Met	Glu	Gly	Gly	His
195															205
Ala	Pro	Glu	Glu	Ile	Trp	Glu	Glu	Leu	Ser	Val	Met	Glu	Val	Tyr	
210															220
Asp	Gly	Arg	Glu	His	Ser	Ala	Tyr	Gly	Glu	Pro	Arg	Lys	Leu	Leu	Thr
225															240
Gln	Asp	Leu	Val	Gln	Glu	Lys	Tyr	Leu	Glu	Tyr	Arg	Gln	Val	Pro	Asp
245															255
Ser	Asp	Pro	Ala	Arg	Tyr	Glu	Phe	Leu	Trp	Gly	Pro	Arg	Ala	Leu	Ala
260															270
Glu	Thr	Ser	Tyr	Val	Lys	Val	Leu	Glu	Tyr	Val	Ile	Lys	Val	Ser	Ala
275															285
Arg	Val	Arg	Phe	Phe	Pro	Ser	Leu	Arg	Glu	Ala	Ala	Leu	Arg	Glu	
290															300
Glu	Glu	Glu	Gly	Val											
305															

<210> 72
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 72

Met Pro Leu Glu Gln Arg Ser Gln His Cys Lys Pro Glu Glu Gly Leu
 1 5 10 15
 Glu Ala Arg Gly Glu Ala Leu Gly Leu Val Gly Ala Gln Ala Pro Ala
 20 25 30
 Thr Glu Glu Gln Gln Thr Ala Ser Ser Ser Ser Thr Leu Val Glu Val
 35 40 45
 Thr Leu Gly Glu Val Pro Ala Ala Asp Ser Pro Ser Pro Pro His Ser
 50 55 60
 Pro Gln Gly Ala Ser Ser Phe Ser Thr Thr Ile Asn Tyr Thr Leu Trp
 65 70 75 80
 Arg Gln Ser Asp Glu Gly Ser Ser Asn Gln Glu Glu Glu Gly Pro Arg
 85 90 95
 Met Phe Pro Asp Leu Glu Ser Glu Phe Gln Ala Ala Ile Ser Arg Lys
 100 105 110
 Met Val Glu Leu Val His Phe Leu Leu Leu Lys Tyr Arg Ala Arg Glu
 115 120 125
 Pro Val Thr Lys Ala Glu Met Leu Glu Ser Val Leu Arg Asn Cys Gln
 130 135 140
 Asp Phe Phe Pro Val Ile Phe Ser Lys Ala Ser Glu Tyr Leu Gln Leu
 145 150 155 160
 Val Phe Gly Ile Glu Val Val Glu Val Val Pro Ile Ser His Leu Tyr
 165 170 175
 Ile Leu Val Thr Cys Leu Gly Leu Ser Tyr Asp Gly Leu Leu Gly Asp
 180 185 190
 Asn Gln Val Met Pro Lys Thr Gly Leu Leu Ile Ile Val Leu Ala Ile
 195 200 205
 Ile Ala Ile Glu Gly Asp Cys Ala Pro Glu Glu Lys Ile Trp Glu Glu
 210 215 220
 Leu Ser Met Leu Glu Val Phe Glu Gly Arg Glu Asp Ser Val Phe Ala
 225 230 235 240
 His Pro Arg Lys Leu Leu Met Gln Asp Leu Val Gln Glu Asn Tyr Leu
 245 250 255
 Glu Tyr Arg Gln Val Pro Gly Ser Asp Pro Ala Cys Tyr Glu Phe Leu
 260 265 270
 Trp Gly Pro Arg Ala Leu Ile Glu Thr Ser Tyr Val Lys Val Leu His
 275 280 285
 His Thr Leu Lys Ile Gly Gly Glu Pro His Ile Ser Tyr Pro Pro Leu
 290 295 300
 His Glu Arg Ala Leu Arg Glu Gly Glu Glu
 305 310

<210> 73
 <211> 314
 <212> PRT
 <213> Homo sapiens

<400> 73
 Met Pro Leu Glu Gln Arg Ser Gln His Cys Lys Pro Glu Glu Gly Leu
 1 5 10 15
 Glu Ala Arg Gly Glu Ala Leu Gly Leu Val Gly Ala Gln Ala Pro Ala
 20 25 30
 Thr Glu Glu Gln Glu Ala Ala Ser Ser Ser Ser Thr Leu Val Glu Val
 35 40 45
 Thr Leu Gly Glu Val Pro Ala Ala Glu Ser Pro Asp Pro Pro Gln Ser
 50 55 60
 Pro Gln Gly Ala Ser Ser Leu Pro Thr Thr Met Asn Tyr Pro Leu Trp

65	70	75	80
Ser Gln Ser Tyr Glu Asp Ser Ser Asn Gln Glu Glu Glu Gly Pro Ser			
85	90	95	
Thr Phe Pro Asp Leu Glu Ser Glu Phe Gln Ala Ala Leu Ser Arg Lys			
100	105	110	
Val Ala Glu Leu Val His Phe Leu Leu Leu Lys Tyr Arg Ala Arg Glu			
115	120	125	
Pro Val Thr Lys Ala Glu Met Leu Gly Ser Val Val Gly Asn Trp Gln			
130	135	140	
Tyr Phe Phe Pro Val Ile Phe Ser Lys Ala Ser Ser Ser Leu Gln Leu			
145	150	155	160
Val Phe Gly Ile Glu Leu Met Glu Val Asp Pro Ile Gly His Leu Tyr			
165	170	175	
Ile Phe Ala Thr Cys Leu Gly Leu Ser Tyr Asp Gly Leu Leu Gly Asp			
180	185	190	
Asn Gln Ile Met Pro Lys Ala Gly Leu Leu Ile Ile Val Leu Ala Ile			
195	200	205	
Ile Ala Arg Glu Gly Asp Cys Ala Pro Glu Glu Lys Ile Trp Glu Glu			
210	215	220	
Leu Ser Val Leu Glu Val Phe Glu Gly Arg Glu Asp Ser Ile Leu Gly			
225	230	235	240
Asp Pro Lys Lys Leu Leu Thr Gln His Phe Val Gln Glu Asn Tyr Leu			
245	250	255	
Glu Tyr Arg Gln Val Pro Gly Ser Asp Pro Ala Cys Tyr Glu Phe Leu			
260	265	270	
Trp Gly Pro Arg Ala Leu Val Glu Thr Ser Tyr Val Lys Val Leu His			
275	280	285	
His Met Val Lys Ile Ser Gly Gly Pro His Ile Ser Tyr Pro Pro Leu			
290	295	300	
His Glu Trp Val Leu Arg Glu Gly Glu Glu			
305	310		

<210> 74
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 74			
Met Gln Ala Glu Gly Arg Gly Thr Gly Gly Ser Thr Gly Asp Ala Asp			
1	5	10	15
Gly Pro Gly Gly Pro Gly Ile Pro Asp Gly Pro Gly Gly Asn Ala Gly			
20	25	30	
Gly Pro Gly Glu Ala Gly Ala Thr Gly Gly Arg Gly Pro Arg Gly Ala			
35	40	45	
Gly Ala Ala Arg Ala Ser Gly Pro Gly Gly Ala Pro Arg Gly Pro			
50	55	60	
His Gly Gly Ala Ala Ser Gly Leu Asn Gly Cys Cys Arg Cys Gly Ala			
65	70	75	80
Arg Gly Pro Glu Ser Arg Leu Leu Glu Phe Tyr Leu Ala Met Pro Phe			
85	90	95	
Ala Thr Pro Met Glu Ala Glu Leu Ala Arg Arg Ser Leu Ala Gln Asp			
100	105	110	
Ala Pro Pro Leu Pro Val Pro Gly Val Leu Leu Lys Glu Phe Thr Val			
115	120	125	
Ser Gly Asn Ile Leu Thr Ile Arg Leu Thr Ala Ala Asp His Arg Gln			
130	135	140	

Leu Gln Leu Ser Ile Ser Ser Cys Leu Gln Gln Leu Ser Leu Leu Met
 145 150 155 160
 Trp Ile Thr Gln Cys Phe Leu Pro Val Phe Leu Ala Gln Pro Pro Ser
 165 170 175
 Gly Gln Arg Arg
 180

<210> 75
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 75
 Met Gln Ala Glu Gly Arg Gly Thr Gly Ser Thr Gly Asp Ala Asp
 1 5 10 15
 Gly Pro Gly Gly Pro Gly Ile Pro Asp Gly Pro Gly Gly Asn Ala Gly
 20 25 30
 Gly Pro Gly Glu Ala Gly Ala Thr Gly Gly Arg Gly Pro Arg Gly Ala
 35 40 45
 Gly Ala Ala Arg Ala Ser Gly Pro Arg Gly Gly Ala Pro Arg Gly Pro
 50 55 60
 His Gly Gly Ala Ala Ser Ala Gln Asp Gly Arg Cys Pro Cys Gly Ala
 65 70 75 80
 Arg Arg Pro Asp Ser Arg Leu Leu Glu Leu His Ile Thr Met Pro Phe
 85 90 95
 Ser Ser Pro Met Glu Ala Glu Leu Val Arg Arg Ile Leu Ser Arg Asp
 100 105 110
 Ala Ala Pro Leu Pro Arg Pro Gly Ala Val Leu Lys Asp Phe Thr Val
 115 120 125
 Ser Gly Asn Leu Leu Phe Ile Arg Leu Thr Ala Ala Asp His Arg Gln
 130 135 140
 Leu Gln Leu Ser Ile Ser Ser Cys Leu Gln Gln Leu Ser Leu Leu Met
 145 150 155 160
 Trp Ile Thr Gln Cys Phe Leu Pro Val Phe Leu Ala Gln Ala Pro Ser
 165 170 175
 Gly Gln Arg Arg
 180

<210> 76
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 76
 Met Gln Ala Glu Gly Arg Gly Thr Gly Ser Thr Gly Asp Ala Asp
 1 5 10 15
 Gly Pro Gly Gly Pro Gly Ile Pro Asp Gly Pro Gly Gly Asn Ala Gly
 20 25 30
 Gly Pro Gly Glu Ala Gly Ala Thr Gly Gly Arg Gly Pro Arg Gly Ala
 35 40 45
 Gly Ala Ala Arg Ala Ser Gly Pro Arg Gly Gly Ala Pro Arg Gly Pro
 50 55 60
 His Gly Gly Ala Ala Ser Ala Gln Asp Gly Arg Cys Pro Cys Gly Ala
 65 70 75 80
 Arg Arg Pro Asp Ser Arg Leu Leu Glu Leu His Ile Thr Met Pro Phe

85	90	95
Ser Ser Pro Met Glu Ala Glu Leu Val Arg Arg Ile Leu Ser Arg Asp		
100 105 110		
Ala Ala Pro Leu Pro Arg Pro Gly Ala Val Leu Lys Asp Phe Thr Val		
115 120 125		
Ser Gly Asn Leu Leu Phe Met Ser Val Trp Asp Gln Asp Arg Glu Gly		
130 135 140		
Ala Gly Arg Met Arg Val Val Gly Trp Gly Leu Gly Ser Ala Ser Pro		
145 150 155 160		
Glu Gly Gln Lys Ala Arg Asp Leu Arg Thr Pro Lys His Lys Val Ser		
165 170 175		
Glu Gln Arg Pro Gly Thr Pro Gly Pro Pro Pro Glu Gly Ala Gln		
180 185 190		
Gly Asp Gly Cys Arg Gly Val Ala Phe Asn Val Met Phe Ser Ala Pro		
195 200 205		
His Ile		
210		

<210> 77
 <211> 509
 <212> PRT
 <213> Homo sapiens

400	405	410
Met Glu Arg Arg Arg Leu Trp Gly Ser Ile Gln Ser Arg Tyr Ile Ser		
1 5 10 15		
Met Ser Val Trp Thr Ser Pro Arg Arg Leu Val Glu Leu Ala Gly Gln		
20 25 30		
Ser Leu Leu Lys Asp Glu Ala Leu Ala Ile Ala Leu Glu Leu Leu		
35 40 45		
Pro Arg Glu Leu Phe Pro Pro Leu Phe Met Ala Ala Phe Asp Gly Arg		
50 55 60		
His Ser Gln Thr Leu Lys Ala Met Val Gln Ala Trp Pro Phe Thr Cys		
65 70 75 80		
Leu Pro Leu Gly Val Leu Met Lys Gly Gln His Leu His Leu Glu Thr		
85 90 95		
Phe Lys Ala Val Leu Asp Gly Leu Asp Val Leu Leu Ala Gln Glu Val		
100 105 110		
Arg Pro Arg Arg Trp Lys Leu Gln Val Leu Asp Leu Arg Lys Asn Ser		
115 120 125		
His Gln Asp Phe Trp Thr Val Trp Ser Gly Asn Arg Ala Ser Leu Tyr		
130 135 140		
Ser Phe Pro Glu Pro Glu Ala Ala Gln Pro Met Thr Lys Lys Arg Lys		
145 150 155 160		
Val Asp Gly Leu Ser Thr Glu Ala Glu Gln Pro Phe Ile Pro Val Glu		
165 170 175		
Val Leu Val Asp Leu Phe Leu Lys Glu Gly Ala Cys Asp Glu Leu Phe		
180 185 190		
Ser Tyr Leu Ile Glu Lys Val Lys Arg Lys Lys Asn Val Leu Arg Leu		
195 200 205		
Cys Cys Lys Lys Leu Lys Ile Phe Ala Met Pro Met Gln Asp Ile Lys		
210 215 220		
Met Ile Leu Lys Met Val Gln Leu Asp Ser Ile Glu Asp Leu Glu Val		
225 230 235 240		
Thr Cys Thr Trp Lys Leu Pro Thr Leu Ala Lys Phe Ser Pro Tyr Leu		
245 250 255		

Gly Gln Met Ile Asn Leu Arg Arg Leu Leu Leu Ser His Ile His Ala
 260 265 270
 Ser Ser Tyr Ile Ser Pro Glu Lys Glu Glu Gln Tyr Ile Ala Gln Phe
 275 280 285
 Thr Ser Gln Phe Leu Ser Leu Gln Cys Leu Gln Ala Leu Tyr Val Asp
 290 295 300
 Ser Leu Phe Phe Leu Arg Gly Arg Leu Asp Gln Leu Leu Arg His Val
 305 310 315 320
 Met Asn Pro Leu Glu Thr Leu Ser Ile Thr Asn Cys Arg Leu Ser Glu
 325 330 335
 Gly Asp Val Met His Leu Ser Gln Ser Pro Ser Val Ser Gln Leu Ser
 340 345 350
 Val Leu Ser Leu Ser Gly Val Met Leu Thr Asp Val Ser Pro Glu Pro
 355 360 365
 Leu Gln Ala Leu Leu Glu Arg Ala Ser Ala Thr Leu Gln Asp Leu Val
 370 375 380
 Phe Asp Glu Cys Gly Ile Thr Asp Asp Gln Leu Leu Ala Leu Leu Pro
 385 390 395 400
 Ser Leu Ser His Cys Ser Gln Leu Thr Thr Leu Ser Phe Tyr Gly Asn
 405 410 415
 Ser Ile Ser Ile Ser Ala Leu Gln Ser Leu Leu Gln His Leu Ile Gly
 420 425 430
 Leu Ser Asn Leu Thr His Val Leu Tyr Pro Val Pro Leu Glu Ser Tyr
 435 440 445
 Glu Asp Ile His Gly Thr Leu His Leu Glu Arg Leu Ala Tyr Leu His
 450 455 460
 Ala Arg Leu Arg Glu Leu Leu Cys Glu Leu Gly Arg Pro Ser Met Val
 465 470 475 480
 Trp Leu Ser Ala Asn Pro Cys Pro His Cys Gly Asp Arg Thr Phe Tyr
 485 490 495
 Asp Pro Glu Pro Ile Leu Cys Pro Cys Phe Met Pro Asn
 500 505

<210> 78
 <211> 261
 <212> PRT
 <213> Homo sapiens

<400> 78
 Met Trp Val Pro Val Val Phe Leu Thr Leu Ser Val Thr Trp Ile Gly
 1 5 10 15
 Ala Ala Pro Leu Ile Leu Ser Arg Ile Val Gly Gly Trp Glu Cys Glu
 20 25 30
 Lys His Ser Gln Pro Trp Gln Val Leu Val Ala Ser Arg Gly Arg Ala
 35 40 45
 Val Cys Gly Gly Val Leu Val His Pro Gln Trp Val Leu Thr Ala Ala
 50 55 60
 His Cys Ile Arg Asn Lys Ser Val Ile Leu Leu Gly Arg His Ser Leu
 65 70 75 80
 Phe His Pro Glu Asp Thr Gly Gln Val Phe Gln Val Ser His Ser Phe
 85 90 95
 Pro His Pro Leu Tyr Asp Met Ser Leu Leu Lys Asn Arg Phe Leu Arg
 100 105 110
 Pro Gly Asp Asp Ser Ser His Asp Leu Met Leu Leu Arg Leu Ser Glu
 115 120 125
 Pro Ala Glu Leu Thr Asp Ala Val Lys Val Met Asp Leu Pro Thr Gln

130	135	140													
Glu	Pro	Ala	Leu	Gly	Thr	Thr	Cys	Tyr	Ala	Ser	Gly	Trp	Gly	Ser	Ile
145															160
Glu	Pro	Glu	Glu	Phe	Leu	Thr	Pro	Lys	Lys	Leu	Gln	Cys	Val	Asp	Leu
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<211> 752

<212> DNA

<213> Homo sapiens

<400> 84

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<211> 2148

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

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<223> n = A, T, C or G

<400> 85

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<211> 1466
<212> DNA
<213> *Homo sapiens*

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<210> 87
 <211> 990
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
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 <223> n = A,T,C or G

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<210> 88
 <211> 702
 <212> PRT
 <213> Homo sapiens

<400> 88
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 35 40 45
 Lys Glu Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly
 50 55 60
 Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile
 65 70 75 80
 Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser
 85 90 95
 Gly Arg Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile
 100 105 110
 Ile Gln Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp

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130	135	140
Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys		
145	150	155
Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr		
165	170	175
Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln		
180	185	190
Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn		
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Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg		
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Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro		
225	230	235
Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn		
245	250	255
Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe		
260	265	270
Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn		
275	280	285
Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser		
290	295	300
Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala		
305	310	315
Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu		
325	330	335
Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr		
340	345	350
Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg		
355	360	365
Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr		
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Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser		
385	390	395
Val Asp His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr Gly Pro Asp		
405	410	415
Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn		
420	425	430
Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser		
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Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile		
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Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn		
465	470	475
Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val		
485	490	495
Ser Ala Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro		
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Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln		
515	520	525
Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser		
530	535	540
Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn		
545	550	555
Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser		
565	570	575

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				610		615					620				
Tyr	Ser	Trp	Arg	Ile	Asn	Gly	Ile	Pro	Gln	Gln	His	Thr	Gln	Val	Leu
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Phe	Ile	Ala	Lys	Ile	Thr	Pro	Asn	Asn	Asn	Gly	Thr	Tyr	Ala	Cys	Phe
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Thr	Val	Ser	Ala	Ser	Gly	Thr	Ser	Pro	Gly	Leu	Ser	Ala	Gly	Ala	Thr
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<210> 89
<211> 2974
<212> DNA
<213> *Homo sapiens*

<400> 89
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 tcaataaaaaa tctgctctt gtataacaga aaaa 2974

<210> 90

<211> 1255

<212> PRT

<213> Homo sapiens

<400> 90

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Pro	Pro	Gly	Ala	Ala	Ser	Thr	Gln	Val	Cys	Thr	Gly	Thr	Asp	Met	Lys
	20				25					30					
Leu	Arg	Leu	Pro	Ala	Ser	Pro	Glu	Thr	His	Leu	Asp	Met	Leu	Arg	His
	35				40				45						
Leu	Tyr	Gln	Gly	Cys	Gln	Val	Val	Gln	Gly	Asn	Leu	Glu	Leu	Thr	Tyr
	50				55				60						
Leu	Pro	Thr	Asn	Ala	Ser	Leu	Ser	Phe	Leu	Gln	Asp	Ile	Gln	Glu	Val
	65				70				75			80			
Gln	Gly	Tyr	Val	Leu	Ile	Ala	His	Asn	Gln	Val	Arg	Gln	Val	Pro	Leu
	85				90				95						
Gln	Arg	Leu	Arg	Ile	Val	Arg	Gly	Thr	Gln	Leu	Phe	Glu	Asp	Asn	Tyr
	100				105				110						
Ala	Leu	Ala	Val	Leu	Asp	Asn	Gly	Asp	Pro	Leu	Asn	Asn	Thr	Thr	Pro
	115				120				125						
Val	Thr	Gly	Ala	Ser	Pro	Gly	Gly	Leu	Arg	Glu	Leu	Gln	Leu	Arg	Ser
	130				135				140						
Leu	Thr	Glu	Ile	Leu	Lys	Gly	Gly	Val	Leu	Ile	Gln	Arg	Asn	Pro	Gln
	145				150				155			160			
Leu	Cys	Tyr	Gln	Asp	Thr	Ile	Leu	Trp	Lys	Asp	Ile	Phe	His	Lys	Asn
	165				170				175						
Asn	Gln	Leu	Ala	Leu	Thr	Leu	Ile	Asp	Thr	Asn	Arg	Ser	Arg	Ala	Cys
	180				185				190						
His	Pro	Cys	Ser	Pro	Met	Cys	Lys	Gly	Ser	Arg	Cys	Trp	Gly	Glu	Ser
	195				200				205						
Ser	Glu	Asp	Cys	Gln	Ser	Leu	Thr	Arg	Thr	Val	Cys	Ala	Gly	Gly	Cys
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Ala	Arg	Cys	Lys	Gly	Pro	Leu	Pro	Thr	Asp	Cys	Cys	His	Glu	Gln	Cys
	225				230				235			240			
Ala	Ala	Gly	Cys	Thr	Gly	Pro	Lys	His	Ser	Asp	Cys	Leu	Ala	Cys	Leu
	245				250				255						
His	Phe	Asn	His	Ser	Gly	Ile	Cys	Glu	Leu	His	Cys	Pro	Ala	Leu	Val

260	265	270		
Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro	275	280	285	
Gly Arg				
Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu	290	295	300	
295	300			
Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln	305	310	315	320
310	315	320		
Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys	325	330	335	
330	335			
Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu	340	345	350	
345	350			
Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys	355	360	365	
360	365			
Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp	370	375	380	
375	380			
Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe	385	390	395	400
390	395	400		
Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro	405	410	415	
410	415			
Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg	420	425	430	
425	430			
Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu	435	440	445	
440	445			
Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly	450	455	460	
455	460			
Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val	465	470	475	480
470	475	480		
Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr	485	490	495	
490	495			
Ala Asn Arg Pro Glu Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His	500	505	510	
505	510			
Gln Leu Cys Ala Arg Gly His Cys Trp Gly Pro Gly Pro Thr Gln Cys	515	520	525	
520	525			
Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Val Glu Glu Cys	530	535	540	
535	540			
Arg Val Leu Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys	545	550	555	560
550	555	560		
Leu Pro Cys His Pro Glu Cys Gln Pro Gln Asn Gly Ser Val Thr Cys	565	570	575	
570	575			
Phe Gly Pro Glu Ala Asp Gln Cys Val Ala Cys Ala His Tyr Lys Asp	580	585	590	
585	590			
Pro Pro Phe Cys Val Ala Arg Cys Pro Ser Gly Val Lys Pro Asp Leu	595	600	605	
600	605			
Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln	610	615	620	
615	620			
Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys	625	630	635	640
630	635	640		
Gly Cys Pro Ala Glu Gln Arg Ala Ser Pro Leu Thr Ser Ile Val Ser	645	650	655	
650	655			
Ala Val Val Gly Ile Leu Leu Val Val Leu Gly Val Val Phe Gly	660	665	670	
665	670			
Ile Leu Ile Lys Arg Arg Gln Gln Lys Ile Arg Lys Tyr Thr Met Arg	675	680	685	
680	685			
Arg Leu Leu Gln Glu Thr Glu Leu Val Glu Pro Leu Thr Pro Ser Gly	690	695	700	
695	700			
Ala Met Pro Asn Gln Ala Gln Met Arg Ile Leu Lys Glu Thr Glu Leu	705	710	715	720
715	720			

Arg Lys Val Lys Val Leu Gly Ser Gly Ala Phe Gly Thr Val Tyr Lys
 725 730 735
 Gly Ile Trp Ile Pro Asp Gly Glu Asn Val Lys Ile Pro Val Ala Ile
 740 745 750
 Lys Val Leu Arg Glu Asn Thr Ser Pro Lys Ala Asn Lys Glu Ile Leu
 755 760 765
 Asp Glu Ala Tyr Val Met Ala Gly Val Gly Ser Pro Tyr Val Ser Arg
 770 775 780
 Leu Leu Gly Ile Cys Leu Thr Ser Thr Val Gln Leu Val Thr Gln Leu
 785 790 795 800
 Met Pro Tyr Gly Cys Leu Leu Asp His Val Arg Glu Asn Arg Gly Arg
 805 810 815
 Leu Gly Ser Gln Asp Leu Leu Asn Trp Cys Met Gln Ile Ala Lys Gly
 820 825 830
 Met Ser Tyr Leu Glu Asp Val Arg Leu Val His Arg Asp Leu Ala Ala
 835 840 845
 Arg Asn Val Leu Val Lys Ser Pro Asn His Val Lys Ile Thr Asp Phe
 850 855 860
 Gly Leu Ala Arg Leu Leu Asp Ile Asp Glu Thr Glu Tyr His Ala Asp
 865 870 875 880
 Gly Gly Lys Val Pro Ile Lys Trp Met Ala Leu Glu Ser Ile Leu Arg
 885 890 895
 Arg Arg Phe Thr His Gln Ser Asp Val Trp Ser Tyr Gly Val Thr Val
 900 905 910
 Trp Glu Leu Met Thr Phe Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala
 915 920 925
 Arg Glu Ile Pro Asp Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro
 930 935 940
 Pro Ile Cys Thr Ile Asp Val Tyr Met Ile Met Val Lys Cys Trp Met
 945 950 955 960
 Ile Asp Ser Glu Cys Arg Pro Arg Phe Arg Glu Leu Val Ser Glu Phe
 965 970 975
 Ser Arg Met Ala Arg Asp Pro Gln Arg Phe Val Val Ile Gln Asn Glu
 980 985 990
 Asp Leu Gly Pro Ala Ser Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu
 995 1000 1005
 Leu Glu Asp Asp Asp Met Gly Asp Leu Val Asp Ala Glu Glu Tyr Leu
 1010 1015 1020
 Val Pro Gln Gln Gly Phe Phe Cys Pro Asp Pro Ala Pro Gly Ala Gly
 1025 1030 1035 1040
 Gly Met Val His His Arg Ser Ser Ser Thr Arg Ser Gly Gly
 1045 1050 1055
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 1060 1065 1070
 Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser Asp Val Phe Asp Gly
 1075 1080 1085
 Asp Leu Gly Met Gly Ala Ala Lys Gly Leu Gln Ser Leu Pro Thr His
 1090 1095 1100
 Asp Pro Ser Pro Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu
 1105 1110 1115 1120
 Pro Ser Glu Thr Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln
 1125 1130 1135
 Pro Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro
 1140 1145 1150
 Arg Glu Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu
 1155 1160 1165
 Arg Ala Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val

1170	1175	1180
Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln		
1185	1190	1195
Gly Gly Ala Ala Pro Gln Pro His Pro Pro Pro Ala		1200
1205	1210	1215
Phe Asp Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala		
1220	1225	1230
Pro Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr		
1235	1240	1245
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 <212> DNA
 <213> Homo sapiens

<400> 91
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 caggcgtgcc aggtggcga gggaaacctg gaactcacct acctgcccac caatgccagc 360
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<210> 92
 <211> 976
 <212> PRT
 <213> Homo sapiens

<400> 92
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 Thr Phe Phe Lys Ser Phe Asn Lys Cys Thr Glu Asp Asp Leu Glu Phe
 35 40 45
 Pro Phe Ala Lys Thr Asn Leu Ser Lys Asn Gly Glu Asn Ile Asp Ser
 50 55 60
 Asp Pro Ala Leu Gln Lys Val Asn Phe Leu Pro Val Leu Glu Gln Val
 65 70 75 80
 Gly Asn Ser Asp Cys His Tyr Gln Glu Gly Leu Lys Asp Ser Asp Leu
 85 90 95

Glu Asn Ser Glu Gly Leu Ser Arg Val Phe Ser Lys Leu Tyr Lys Glu
 100 105 110
 Ala Glu Lys Ile Lys Lys Trp Lys Val Ser Thr Glu Ala Glu Leu Arg
 115 120 125
 Gln Lys Glu Ser Lys Leu Gln Glu Asn Arg Lys Ile Ile Glu Ala Gln
 130 135 140
 Arg Lys Ala Ile Gln Glu Leu Gln Phe Gly Asn Glu Lys Val Ser Leu
 145 150 155 160
 Lys Leu Glu Glu Gly Ile Gln Glu Asn Lys Asp Leu Ile Lys Glu Asn
 165 170 175
 Asn Ala Thr Arg His Leu Cys Asn Leu Leu Lys Glu Thr Cys Ala Arg
 180 185 190
 Ser Ala Glu Lys Thr Lys Lys Tyr Glu Tyr Glu Arg Glu Glu Thr Arg
 195 200 205
 Gln Val Tyr Met Asp Leu Asn Asn Ile Glu Lys Met Ile Thr Ala
 210 215 220
 His Gly Glu Leu Arg Val Gln Ala Glu Asn Ser Arg Leu Glu Met His
 225 230 235 240
 Phe Lys Leu Lys Glu Asp Tyr Glu Lys Ile Gln His Leu Glu Gln Glu
 245 250 255
 Tyr Lys Lys Glu Ile Asn Asp Lys Glu Lys Gln Val Ser Leu Leu Leu
 260 265 270
 Ile Gln Ile Thr Glu Lys Glu Asn Lys Met Lys Asp Leu Thr Phe Leu
 275 280 285
 Leu Glu Glu Ser Arg Asp Lys Val Asn Gln Leu Glu Lys Thr Lys
 290 295 300
 Leu Gln Ser Glu Asn Leu Lys Gln Ser Ile Glu Lys Gln His His Leu
 305 310 315 320
 Thr Lys Glu Leu Glu Asp Ile Lys Val Ser Leu Gln Arg Ser Val Ser
 325 330 335
 Thr Gln Lys Ala Leu Glu Glu Asp Leu Gln Ile Ala Thr Lys Thr Ile
 340 345 350
 Cys Gln Leu Thr Glu Glu Lys Glu Thr Gln Met Glu Glu Ser Asn Lys
 355 360 365
 Ala Arg Ala Ala His Ser Phe Val Val Thr Glu Phe Glu Thr Thr Val
 370 375 380
 Cys Ser Leu Glu Glu Leu Leu Arg Thr Glu Gln Gln Arg Leu Glu Lys
 385 390 395 400
 Asn Glu Asp Gln Leu Lys Ile Leu Thr Met Glu Leu Gln Lys Lys Ser
 405 410 415
 Ser Glu Leu Glu Glu Met Thr Lys Leu Thr Asn Asn Lys Glu Val Glu
 420 425 430
 Leu Glu Glu Leu Lys Lys Val Leu Gly Glu Lys Glu Thr Leu Leu Tyr
 435 440 445
 Glu Asn Lys Gln Phe Glu Lys Ile Ala Glu Glu Leu Lys Gly Thr Glu
 450 455 460
 Gln Glu Leu Ile Gly Leu Leu Gln Ala Arg Glu Lys Glu Val His Asp
 465 470 475 480
 Leu Glu Ile Gln Leu Thr Ala Ile Thr Thr Ser Glu Gln Tyr Tyr Ser
 485 490 495
 Lys Glu Val Lys Asp Leu Lys Thr Glu Leu Glu Asn Glu Lys Leu Lys
 500 505 510
 Asn Thr Glu Leu Thr Ser His Cys Asn Lys Leu Ser Leu Glu Asn Lys
 515 520 525
 Glu Leu Thr Gln Glu Thr Ser Asp Met Thr Leu Glu Leu Lys Asn Gln
 530 535 540
 Gln Glu Asp Ile Asn Asn Lys Lys Gln Glu Glu Arg Met Leu Lys

545	550	555	560												
Gln	Ile	Glu	Asn	Leu	Gln	Glu	Thr	Glu	Thr	Gln	Leu	Arg	Asn	Glu	Leu
565	570	575													
Glu	Tyr	Val	Arg	Glu	Glu	Leu	Lys	Gln	Lys	Arg	Asp	Glu	Val	Lys	Cys
580	585	590													
Lys	Leu	Asp	Lys	Ser	Glu	Glu	Asn	Cys	Asn	Asn	Leu	Arg	Lys	Gln	Val
595	600	605													
Glu	Asn	Lys	Asn	Lys	Tyr	Ile	Glu	Glu	Leu	Gln	Glu	Asn	Lys	Ala	
610	615	620													
Leu	Lys	Lys	Lys	Gly	Thr	Ala	Glu	Ser	Lys	Gln	Leu	Asn	Val	Tyr	Glu
625	630	635	640												
Ile	Lys	Val	Asn	Lys	Leu	Glu	Leu	Glu	Ser	Ala	Lys	Gln	Lys		
645	650	655													
Phe	Gly	Glu	Ile	Thr	Asp	Thr	Tyr	Gln	Lys	Glu	Ile	Glu	Asp	Lys	Lys
660	665	670													
Ile	Ser	Glu	Glu	Asn	Leu	Leu	Glu	Glu	Val	Glu	Lys	Ala	Lys	Val	Ile
675	680	685													
Ala	Asp	Glu	Ala	Val	Lys	Leu	Gln	Lys	Glu	Ile	Asp	Lys	Arg	Cys	Gln
690	695	700													
His	Lys	Ile	Ala	Glu	Met	Val	Ala	Leu	Met	Glu	Lys	His	Lys	His	Gln
705	710	715	720												
Tyr	Asp	Lys	Ile	Ile	Glu	Glu	Arg	Asp	Ser	Glu	Leu	Gly	Leu	Tyr	Lys
725	730	735													
Ser	Lys	Glu	Gln	Glu	Gln	Ser	Ser	Leu	Arg	Ala	Ser	Leu	Glu	Ile	Glu
740	745	750													
Leu	Ser	Asn	Leu	Lys	Ala	Glu	Leu	Leu	Ser	Val	Lys	Lys	Gln	Leu	Glu
755	760	765													
Ile	Glu	Arg	Glu	Glu	Lys	Glu	Lys	Leu	Lys	Arg	Glu	Ala	Lys	Glu	Asn
770	775	780													
Thr	Ala	Thr	Leu	Lys	Glu	Lys	Lys	Asp	Lys	Lys	Thr	Gln	Thr	Phe	Leu
785	790	795	800												
Leu	Glu	Thr	Pro	Glu	Ile	Tyr	Trp	Lys	Leu	Asp	Ser	Lys	Ala	Val	Pro
805	810	815													
Ser	Gln	Thr	Val	Ser	Arg	Asn	Phe	Thr	Ser	Val	Asp	His	Gly	Ile	Ser
820	825	830													
Lys	Asp	Lys	Arg	Asp	Tyr	Leu	Trp	Thr	Ser	Ala	Lys	Asn	Thr	Leu	Ser
835	840	845													
Thr	Pro	Leu	Pro	Lys	Ala	Tyr	Thr	Val	Lys	Thr	Pro	Thr	Lys	Pro	Lys
850	855	860													
Leu	Gln	Gln	Arg	Glu	Asn	Leu	Asn	Ile	Pro	Ile	Glu	Glu	Ser	Lys	Lys
865	870	875	880												
Lys	Arg	Lys	Met	Ala	Phe	Glu	Phe	Asp	Ile	Asn	Ser	Asp	Ser	Ser	Glu
885	890	895													
Thr	Thr	Asp	Leu	Leu	Ser	Met	Val	Ser	Glu	Glu	Thr	Leu	Lys	Thr	
900	905	910													
Leu	Tyr	Arg	Asn	Asn	Asn	Pro	Pro	Ala	Ser	His	Leu	Cys	Val	Lys	Thr
915	920	925													
Pro	Lys	Lys	Ala	Pro	Ser	Ser	Leu	Thr	Thr	Pro	Gly	Pro	Thr	Leu	Lys
930	935	940													
Phe	Gly	Ala	Ile	Arg	Lys	Met	Arg	Glu	Asp	Arg	Trp	Ala	Val	Ile	Ala
945	950	955	960												
Lys	Met	Asp	Arg	Lys	Lys	Lys	Leu	Lys	Glu	Ala	Glu	Lys	Leu	Phe	Val
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<210> 93
<211> 3393

<212> DNA

<213> Homo sapiens

ttaactacat attgtctgga aacctgtcat tgtattcaga taatttagatg attatatatt 3240
gtgttactt tttcttgtat tcatgaaaac tggtttact aagtttcaa atttgtaaag 3300
ttagccttgc aatgcttagga atgcattatt gagggtcatt ctttattctt tactattaaa 3360
atattttgga tgcaaaaaaa aaaaaaaaaa aaa 3393

<210> 94
<211> 188
<212> PRT
<213> Homo sapiens

<400> 94
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1 5 10 15
Ile Ser Glu Lys Leu Arg Lys Ala Phe Asp Asp Ile Ala Lys Tyr Phe
20 25 30
Ser Lys Lys Glu Trp Glu Lys Met Lys Ser Ser Glu Lys Ile Val Tyr
35 40 45
Val Tyr Met Lys Leu Asn Tyr Glu Val Met Thr Lys Leu Gly Phe Lys
50 55 60
Val Thr Leu Pro Pro Phe Met Arg Ser Lys Arg Ala Ala Asp Phe His
65 70 75 80
Gly Asn Asp Phe Gly Asn Asp Arg Asn His Arg Asn Gln Val Glu Arg
85 90 95
Pro Gln Met Thr Phe Gly Ser Leu Gln Arg Ile Phe Pro Lys Ile Met
100 105 110
Pro Lys Lys Pro Ala Glu Glu Glu Asn Gly Leu Lys Glu Val Pro Glu
115 120 125
Ala Ser Gly Pro Gln Asn Asp Gly Lys Gln Leu Cys Pro Pro Gly Asn
130 135 140
Pro Ser Thr Leu Glu Lys Ile Asn Lys Thr Ser Gly Pro Lys Arg Gly
145 150 155 160
Lys His Ala Trp Thr His Arg Leu Arg Glu Arg Lys Gln Leu Val Val
165 170 175
Tyr Glu Glu Ile Ser Asp Pro Glu Glu Asp Asp Glu
180 185

<210> 95
<211> 576
<212> DNA
<213> Homo sapiens

<400> 95
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aaatcctcg agaaaatcgt ctatgtgtat atgaagctaa actatgaggt catgactaaa 180
ctaggttca aggtcaccct cccacccctt atgcgttagta aacgggctgc agactccac 240
ggaaatgatt ttggtaacga tcgaaaccac aggaatcagg ttgaacgtcc tcagatgact 300
ttcggcagcc tccagagaat cttcccgaaat atcatgccc agaagccagc agaggaagaa 360
aatggtttga aggaagtgc agaggcatct ggcccacaaa atgatggaa acagctgtgc 420
cccccgggaa atccaagtac ctggagaag attaacaaga catctggacc caaaaggggg 480
aaacatgcct ggaccacag actgcgttag agaaagcagc tggtggttta tgaagagatc 540
agcgaccctg aggaagatga cgagtaactc ccctcg 576

<210> 96
<211> 94
<212> PRT

<213> Homo sapiens

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<400> 96
Pro Ala Thr Gln Arg Gln Asp Pro Ala Ala Ala Gln Glu Gly Glu Asp
  1           5           10           15
Glu Gly Ala Ser Ala Gly Gln Gly Pro Lys Pro Glu Ala Asp Ser Gln
  20          25          30
Glu Gln Gly His Pro Gln Thr Gly Cys Glu Cys Glu Asp Gly Pro Asp
  35          40          45
Gly Gln Glu Met Asp Pro Pro Asn Pro Glu Glu Val Lys Thr Pro Glu
  50          55          60
Glu Glu Met Arg Ser His Tyr Val Ala Gln Thr Gly Ile Leu Trp Leu
  65          70          75          80
Leu Met Asn Asn Cys Phe Leu Asn Leu Ser Pro Arg Lys Pro
  85          90

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<210> 97

<211> 646

<212> DNA

<213> Homo sapiens

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<400> 97
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cctatcgccc ccgagcagtt cagtgtgaa gtggaccagg caacacctga agaaggggaa 180
ccagcaactc aacgtcagga tcctgcagct gctcaggagg gagaggatga gggagcatct 240
gcaggtcaag ggcgaagcc tgaagctgat agccaggaac agggtcaccc acagactggg 300
tgtgagttgtg aagatggtcc tcatggcag gagatggacc cgccaaatcc agaggaggtg 360
aaaacgcctg aagaagagat gaggtctcac tatgttgccc agactggat tctctggct 420
ttaatgaaca attgtttctt aaatcttcc ccacggaaac cttgagtgac tgaatatatca 480
aatggcgaga gaccgtttag ttccatcat ctgtggcatg tgaaggccaa tcacagtgtt 540
aaaagaagac atgctgaat gttgcaggct gctcctatgt tggaaaattc ttcatgttca 600
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<210> 98

<211> 98

<212> PRT

<213> Homo sapiens

<400> 98

<210> 99
<211> 1619
<212> DNA
<213> Homo sapiens

<400> 99

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ctggcccttc ttggaggggct ggcgcctgcac cccggagcgg atggccgagg ctggcttcat 180
ccactgcccc actgagaacg agccagactt ggcccagtgt ttcttctgct tcaaggagct 240
gaaaggctgg gagccagatg acgaccatcat agaggaacat aaaaagcatt cgtccgggtg 300
cgcttcctt tctgtcaaga agcagtttga agaattaacc cttggtaat ttttgaact 360
ggacagagaa agagccaaga acaaatttc aagggaaacc aacaataaga agaaagaatt 420
tgagggaaact gcgaaagaaag tgcgcgtgc catcgacag ctggctgcca tggattgagg 480
cctctggccg gagctgcctg gtcccagatg ggctgcacca cttccagggt ttattccctg 540
gtgccaccag ccttcctgtg ggccccttag caatgtctta gaaaaaggaga tcaacatccc 600
caaatttagat gtttcaactg tgctcctgtt ttgtcttcaa agtggcacca gaggtgcttc 660
tgcctgtca gcgggtgctg ctggtaacag tggctgcttc tctctctctc tctcttttt 720
gggggctcat ttttgcgtt ttgattcccg ggcttaccag gtgagaagtg agggaggaag 780
aaggcagtgt ccctttgtt agagctgaca gctttgtcg cgtggcaga gcctttccaca 840
gtgaatgtgt ctggaccta tttttttttt gttttttttt gttttttttt gttttttttt gttttttttt 900
gtgcctgtt gaatctgagc tgcaggttcc ttatctgtca cacctgtgc tcctcagagg 960
acagttttttt tttttttttt tttttttttt tttttttttt gttttttttt gttttttttt gttttttttt 1020
gtgatgagaa aatggagaca gatccctgg ctccttact gtttaacaac atggcttct 1080
tattttgtttt gaatttttaa ttcacagaat agcacaactt acaattaaaaa ctaagcacaa 1140
agccattcta agtcattggg gaaacggggta gaacttcagg tggatgagga gacagaatag 1200
agtgtatagga agcgtctggc agatactccct tttgcactg ctgtgtgatt agacaggccc 1260
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ctttttaaat gacttggctc gatgctgtgg gggactggct gggctgctgc agggctgtg 1380
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ccaggtcccc gcttttttgg gaggcagcag ctcccgagg gctgaagtct ggcgttaagat 1500
gatggatttg attcgccttc ctccctgtca tagagctgca gggtgatttgg ttacagcttc 1560
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<210> 100
<211> 74
<212> PRT
<213> Homo sapiens

<400> 100

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20 25 30
Glu Gly Phe Asp His Arg Asp Ser Lys Val Ser Leu Gln Glu Lys Asn
35 40 45
Cys Glu Pro Val Val Pro Asn Ala Pro Pro Ala Tyr Glu Lys Leu Ser
50 55 60
Ala Glu Gln Ser Pro Pro Tyr Ser Pro
65 70

<210> 101
<211> 1524
<212> DNA
<213> Homo sapiens

<400> 101

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gagaagatgc tcacttcattc tatggttacc ccaagaagg gcacggccac tcttacacca 120
cggctgaaga ggccgctggg atcggcatcc tgacagtat cctggagtc ttactgtca 180
tcggctgttg gtattgtaga agacgaaatg gatacagagc cttgatggat aaaagtcttc 240
atgttggcac tcaatgtgcc ttaacaagaa gatgcccaca agaagggtt gatcatcgaa 300
acagcaaagt gtctttcaaa gagaaaaact gtgaacctgt ggttcccaat gctccacctg 360
cttatgagaa actctctgca gaacagtac caccaccta ttcacccaa gagccagcga 420
gacacctgag acatgtgaa attatttctc tcacacttt gcttgaatt aatacagaca 480
tctaatttttc tccttggaa tggtaggaaaatgcaag ccatctctaa taataagtca 540
gtgtttaat ttttagtaggt ccgcttagc tactaatcat gtgagaaat gatgagaaat 600
attaaattgg gaaaactcca tcaataatg ttgcaatgca tgatactatc tgtgcagag 660
gtaatgttag taaatccatg gtgttatttt ctgagagaca gaattcaagt gggattctg 720
ggccatcca atttctctt acttgaattt tggctataaa caaaacttagtc aggtttcga 780
accttgcacg acatgaactg tacacagaat tggccatgt ctatggatg ctcacaaagg 840
atactttac aggttaagac aaagggttga ctggccattt tatctgtca agaacatgtc 900
agcaatgtct ctttggctc taaaattcta ttatactaca ataataatatt gtaaagatcc 960
tatagtctt tttttttagt atggagttt gctttgttg cccaggctgg agtgcaatgg 1020
cgcgatctt gtcaccata acctccgcct cccaggttca agcaattctc ctgccttagc 1080
ctcctgatgt gctggattt caggcgtcgccactatgccc tgactaattt ttagtttta 1140
gttagagacgg ggttctcca tggtagtca gctggctca aactcctgac ctcaggtat 1200
ctgcccgcct cagcctccca aagtgtggaa attacaggcg tgagccacca cgcctggctg 1260
gatcctataat cttagtaag acatataacg cagtcttaattt acatttact tcaaggctca 1320
atgctatttc aactaatgac aagtatttt tactaaacca gaaattggta gaaggattta 1380
aataagtaaa agctactatg tactgcctt gtcgtatgc ctgtgtactg ctttaatgt 1440
acctatggca atttagtct cttgggttcc caaatccctc tcacaagaat gtgcagaaga 1500
aatcataaaag gatcagagat tctg 1524

<210> 102

<211> 43

<212> PRT

<213> Homo sapiens

<400> 102

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Ala	Arg	Leu	Met	Lys	Glu	Glu	Ser	Pro	Val	Val	Ser	Trp	Arg	Leu	Glu	
								20				25			30	
Pro	Glu	Asp	Gly	Thr	Ala	Leu	Cys	Phe	Ile	Phe						
								35				40				

<210> 103

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 103

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gtgggtggcaa cagagatggc agcgcagctg gagtggtagg agggcggccct gagcgttagg 180
agtggggctg gagcagtaag atggcggcca gagcgtttt tctggcattt tctgcccagc 240
tgctccaaggc caggctgtatc aaggaggatg cccctgtggt gagctggagg ttggagccctg 300
aagacggcac agctctgtgc ttcatcttc gaggtgtgg cagccacggt gatggagacg 360
gcagctcaac aggagaata ggaggagatg gagttcaact gtcgtcagccaa ggatgttctc 420
gatctcctga cctcgtatc cgccgcctt ggccttccaa agtgcggaga ttacagcgat 480
gtgcattttt taagcactt ggagccacta tcaaattgtc tgaagagaaa tgtaccaga 540

tgtatcatta tccttgct gcaggagccg gtccttca ggatttcagt cacatcttcc 600
tgcgggtcc agaacacatt gaccaagctc ctgaaagatg taagttact acgcataagac 660
ttttaaactt caaccaatgt atttactgaa aataacaat gttgtaaatt ccctgagtgt 720
tattctactt gtattaaaag gtaataatac ataatcatta aaatctgagg gatcattgcc 780
agagattgtt ggggagggaa atgttatcaa cggttcatt gaaattaaat ccaaaaagtt 840
atttcctcag aaaaatcaa taaagttgc atgttttta ttcttaaaac attttaaaaa 900
ccactgtaga atgatgtaaa tagggactgt gcagtattc tgacatatac tataaaaatta 960
ttaaaaagtc aatcagtatt caacatctt tacactaaaa agcc 1004

<210> 104
<211> 9
<212> PRT
<213> Homo sapiens

<400> 104
Trp Val Leu Thr Ala Ala His Cys Ile
1 5

<210> 105
<211> 263
<212> PRT
<213> Homo sapiens

<400> 105
Pro Met Trp Phe Leu Val Leu Cys Leu Ala Leu Ser Leu Gly Gly Thr
1 5 10 15
Gly Ala Ala Pro Pro Ile Gln Ser Arg Ile Val Gly Gly Trp Glu Cys
20 25 30
Glu Gln His Ser Gln Pro Trp Gln Ala Ala Leu Tyr His Phe Ser Thr
35 40 45
Phe Gln Cys Gly Gly Ile Leu Val His Arg Gln Trp Val Leu Thr Ala
50 55 60
Ala His Cys Ile Ser Asp Asn Tyr Gln Leu Trp Leu Gly Arg His Asn
65 70 75 80
Leu Phe Asp Asp Glu Asn Thr Ala Gln Phe Val His Val Ser Glu Ser
85 90 95
Phe Pro His Pro Gly Phe Asn Met Ser Leu Leu Glu Asn His Thr Arg
100 105 110
Gln Ala Asp Glu Asp Tyr Ser His Asp Leu Met Leu Leu Arg Leu Thr
115 120 125
Glu Pro Ala Asp Thr Ile Thr Asp Ala Val Lys Val Val Glu Leu Pro
130 135 140
Thr Gln Glu Pro Glu Val Gly Ser Thr Cys Leu Ala Ser Gly Trp Gly
145 150 155 160
Ser Ile Glu Pro Glu Asn Phe Ser Phe Pro Asp Asp Leu Gln Cys Val
165 170 175
Asp Leu Lys Ile Leu Pro Asn Asp Glu Cys Glu Lys Ala His Val Gln
180 185 190
Lys Val Thr Asp Phe Met Leu Cys Val Gly His Leu Glu Gly Gly Lys
195 200 205
Asp Thr Cys Val Gly Asp Ser Gly Gly Pro Leu Met Cys Asp Gly Val
210 215 220
Leu Gln Gly Val Thr Ser Trp Gly Tyr Val Pro Cys Gly Thr Pro Asn
225 230 235 240
Lys Pro Ser Val Ala Val Arg Val Leu Ser Tyr Val Lys Trp Ile Glu
245 250 255

Asp Thr Ile Ala Glu Asn Ser
260

<210> 106
<211> 270
<212> PRT
<213> Homo sapiens

<400> 106
Pro Met Ile Arg Thr Leu Leu Leu Ser Thr Leu Val Ala Gly Ala Leu
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Ser Cys Gly Asp Pro Thr Tyr Pro Pro Tyr Val Thr Arg Val Val Gly
20 25 30
Gly Glu Glu Ala Arg Pro Asn Ser Trp Pro Trp Gln Val Ser Leu Gln
35 40 45
Tyr Ser Ser Asn Gly Lys Trp Tyr His Thr Cys Gly Gly Ser Leu Ile
50 55 60
Ala Asn Ser Trp Val Leu Thr Ala Ala His Cys Ile Ser Ser Ser Arg
65 70 75 80
Thr Tyr Arg Val Gly Leu Gly Arg His Asn Leu Tyr Val Ala Glu Ser
85 90 95
Gly Ser Leu Ala Val Ser Val Ser Lys Ile Val Val His Lys Asp Trp
100 105 110
Asn Ser Asn Gln Ile Ser Lys Gly Asn Asp Ile Ala Leu Leu Lys Leu
115 120 125
Ala Asn Pro Val Ser Leu Thr Asp Lys Ile Gln Leu Ala Cys Leu Pro
130 135 140
Pro Ala Gly Thr Ile Leu Pro Asn Asn Tyr Pro Cys Tyr Val Thr Gly
145 150 155 160
Trp Gly Arg Leu Gln Thr Asn Gly Ala Val Pro Asp Val Leu Gln Gln
165 170 175
Gly Arg Leu Leu Val Val Asp Tyr Ala Thr Cys Ser Ser Ala Trp
180 185 190
Trp Gly Ser Ser Val Lys Thr Ser Met Ile Cys Ala Gly Gly Asp Gly
195 200 205
Val Ile Ser Ser Cys Asn Gly Asp Ser Gly Gly Pro Leu Asn Cys Gln
210 215 220
Ala Ser Asp Gly Arg Trp Gln Val His Gly Ile Val Ser Phe Gly Ser
225 230 235 240
Arg Leu Gly Cys Asn Tyr Tyr His Lys Pro Ser Val Phe Thr Arg Val
245 250 255
Ser Asn Tyr Ile Asp Trp Ile Asn Ser Val Ile Ala Asn Asn
260 265 270

<210> 107
<211> 270
<212> PRT
<213> Homo sapiens

<400> 107
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Ser Cys Gly Val Ser Thr Tyr Ala Pro Asp Met Ser Arg Met Leu Gly
20 25 30
Gly Glu Glu Ala Arg Pro Asn Ser Trp Pro Trp Gln Val Ser Leu Gln

35	40	45
Tyr Ser Ser Asn Gly Gln Trp Tyr His Thr Cys Gly Gly Ser Leu Ile		
50	55	60
Ala Asn Ser Trp Val Leu Thr Ala Ala His Cys Ile Ser Ser Ser Arg		
65	70	75
Ile Tyr Arg Val Met Leu Gly Gln His Asn Leu Tyr Val Ala Glu Ser		
85	90	95
Gly Ser Leu Ala Val Ser Val Ser Lys Ile Val Val His Lys Asp Trp		
100	105	110
Asn Ser Asn Gln Val Ser Lys Gly Asn Asp Ile Ala Leu Leu Lys Leu		
115	120	125
Ala Asn Pro Val Ser Leu Thr Asp Lys Ile Gln Leu Ala Cys Leu Pro		
130	135	140
Pro Ala Gly Thr Ile Leu Pro Asn Asn Tyr Pro Cys Tyr Val Thr Gly		
145	150	155
Trp Gly Arg Leu Gln Thr Asn Gly Ala Leu Pro Asp Asp Leu Lys Gln		
165	170	175
Gly Arg Leu Leu Val Val Asp Tyr Ala Thr Cys Ser Ser Ser Gly Trp		
180	185	190
Trp Gly Ser Thr Val Lys Thr Asn Met Ile Cys Ala Gly Gly Asp Gly		
195	200	205
Val Ile Cys Thr Cys Asn Gly Asp Ser Gly Gly Pro Leu Asn Cys Gln		
210	215	220
Ala Ser Asp Gly Arg Trp Glu Val His Gly Ile Gly Ser Leu Thr Ser		
225	230	235
Val Leu Gly Cys Asn Tyr Tyr Lys Pro Ser Ile Phe Thr Arg Val		
245	250	255
Ser Asn Tyr Asn Asp Trp Ile Asn Ser Val Ile Ala Asn Asn		
260	265	270

<210> 108

<211> 9

<212> PRT

<213> Homo sapiens

<400> 108

Asn Ile Tyr Asp Leu Phe Val Trp Met

1 5

<210> 109

<211> 10

<212> PRT

<213> Homo sapiens

<400> 109

Tyr Asp Leu Phe Val Trp Met His Tyr Tyr

1 5 10

<210> 110

<211> 9

<212> PRT

<213> Homo sapiens

<400> 110

Asp Leu Phe Val Trp Met His Tyr Tyr
1 5

<210> 111
<211> 9
<212> PRT
<213> Homo sapiens

<400> 111
Asp Ala Leu Leu Gly Gly Ser Glu Ile
1 5

<210> 112
<211> 10
<212> PRT
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<400> 112
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1 5 10

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<400> 113
Ser Glu Ile Trp Arg Asp Ile Asp Phe
1 5

<210> 114
<211> 9
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<400> 114
Glu Ile Trp Arg Asp Ile Asp Phe Ala
1 5

<210> 115
<211> 10
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<213> Homo sapiens

<400> 115
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1 5 10

<210> 116
<211> 10
<212> PRT

<213> Homosapiens

<400> 116
Glu Val Tyr Pro Glu Ala Asn Ala Pro Ile
1 5 10

<210> 117
<211> 9
<212> PRT
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<400> 117
Val Tyr Pro Glu Ala Asn Ala Pro Ile
1 5

<210> 118
<211> 8
<212> PRT
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<400> 118
Tyr Pro Glu Ala Asn Ala Pro Ile
1 5

<210> 119
<211> 10
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<400> 119
Tyr Pro Glu Ala Asn Ala Pro Ile Gly His
1 5 10

<210> 120
<211> 10
<212> PRT
<213> Homosapiens

<400> 120
Ala Pro Ile Gly His Asn Arg Glu Ser Tyr
1 5 10

<210> 121
<211> 9
<212> PRT
<213> Homosapiens

<400> 121
Pro Ile Gly His Asn Arg Glu Ser Tyr
1 5

<210> 122
<211> 10
<212> PRT
<213> Homosapiens

<400> 122
Pro Ile Gly His Asn Arg Glu Ser Tyr Met
1 5 10

<210> 123
<211> 10
<212> PRT
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<400> 123
Ala Pro Ile Gly His Asn Arg Glu Ser Tyr
1 5 10

<210> 124
<211> 9
<212> PRT
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<400> 124
Pro Ile Gly His Asn Arg Glu Ser Tyr
1 5

<210> 125
<211> 8
<212> PRT
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<400> 125
Glu Ser Tyr Met Val Pro Phe Ile
1 5

<210> 126
<211> 10
<212> PRT
<213> Homosapiens

<400> 126
Glu Ser Tyr Met Val Pro Phe Ile Pro Leu
1 5 10

<210> 127
<211> 9
<212> PRT
<213> Homosapiens

<400> 127
Ser Tyr Met Val Pro Phe Ile Pro Leu

1

5

<210> 128
<211> 10
<212> PRT
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<400> 128
Ser Tyr Met Val Pro Phe Ile Pro Leu Tyr
1 5 10

<210> 129
<211> 9
<212> PRT
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<400> 129
Tyr Met Val Pro Phe Ile Pro Leu Tyr
1 5

<210> 130
<211> 9
<212> PRT
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<400> 130
Met Val Pro Phe Ile Pro Leu Tyr Arg
1 5

<210> 131
<211> 10
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<400> 131
Met Val Pro Phe Ile Pro Leu Tyr Arg Asn
1 5 10

<210> 132
<211> 8
<212> PRT
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<400> 132
Val Pro Phe Ile Pro Leu Tyr Arg
1 5

<210> 133
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<400> 133
Ile Pro Leu Tyr Arg Asn Gly Asp
1 5

<210> 134
<211> 10
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<400> 134
Ile Pro Leu Tyr Arg Asn Gly Asp Phe Phe
1 5 10

<210> 135
<211> 9
<212> PRT
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<400> 135
Pro Leu Tyr Arg Asn Gly Asp Phe Phe
1 5

<210> 136
<211> 10
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<213> Homosapiens

<400> 136
Pro Leu Tyr Arg Asn Gly Asp Phe Phe Ile
1 5 10

<210> 137
<211> 10
<212> PRT
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<400> 137
Arg Asn Gly Asp Phe Phe Ile Ser Ser Lys
1 5 10

<210> 138
<211> 9
<212> PRT
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<400> 138
Asn Gly Asp Phe Phe Ile Ser Ser Lys
1 5

<210> 139

<211> 9
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<400> 139
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1 5

<210> 140
<211> 9
<212> PRT
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<400> 140
Ser Tyr Leu Glu Gln Ala Ser Arg Ile
1 5

<210> 141
<211> 10
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<400> 141
Glu Gln Ala Ser Arg Ile Trp Ser Trp Leu
1 5 10

<210> 142
<211> 9
<212> PRT
<213> Homosapiens

<400> 142
Gln Ala Ser Arg Ile Trp Ser Trp Leu
1 5

<210> 143
<211> 8
<212> PRT
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<400> 143
Ala Ser Arg Ile Trp Ser Trp Leu
1 5

<210> 144
<211> 9
<212> PRT
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<400> 144
Ala Ser Arg Ile Trp Ser Trp Leu Leu
1 5

<210> 145
<211> 9
<212> PRT
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<400> 145
Arg Ile Trp Ser Trp Leu Leu Gly Ala
1 5

<210> 146
<211> 9
<212> PRT
<213> Homosapiens

<400> 146
Gly Pro Ala Tyr Ser Gly Arg Glu Ile
1 5

<210> 147
<211> 10
<212> PRT
<213> Homosapiens

<400> 147
Gly Pro Ala Tyr Ser Gly Arg Glu Ile Ile
1 5 10

<210> 148
<211> 8
<212> PRT
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<400> 148
Pro Ala Tyr Ser Gly Arg Glu Ile
1 5

<210> 149
<211> 9
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